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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/649,399

08/26/2003

Ben-Zion Dolitzky

1662/60903

6089

26646 7590 12/15/2009
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EXAMINER

BERCH, MARK L

ART UNIT

PAPER NUMBER

1624

MAIL DATE

DELIVERY MODE

12/15/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/649,399	Applicant(s) DOLITZKY ET AL.	
	Examiner Mark L. Berch	Art Unit 1624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10/13/2009, 10/29/2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 18,35,53-63 and 65-85 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 35 and 58 is/are allowed.
- 6) ☒ Claim(s) 18,53,56,57,59-63 and 65-85 is/are rejected.
- 7) ☒ Claim(s) 54 and 55 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>10/29/2009</u> . | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 62-63, and 66-69 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Applicants have created a new range of 60°C to 70°C. There is no description of such ranges. Applicants cannot simply pull numbers for ranges out of the air. Cf. *Ex Parte Westphall*, 26 USPQ2d 1858; *In re Lukach*, 169 USPQ 795; *In re Maclean*, 172 USPQ 494; *Wagner v. Barger*, 175 USPQ 85; *In re Blaser*, 194 USPQ 122; *In re Baker*, 194 USPQ 470; *In re Kyser*, 200 USPQ 211; *In re Sichert*, 196 USPQ 209; *In re Wertheim*, 209 USPQ 554, 565; *In re Draeger*, 66 USPQ 247, 249 ; *In re Baird*, 146 USPQ 579; *Arness vs. Franks*, 59 USPQ 154, 158; *Ralston Purina Company v. Far-Mar-Co., Inc.*, 227 USPQ 177.

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Claims 59, 62-63, 66-69 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claim 62 specifies heating the monohydrate at about 40°C to about 80°C to give form 1, now identified via the 15.5 and 15.9 numbers. According to the declaration of 19 April 2009, experiment 6, the monohydrate was heated at 45°C and Form 1 did not result. The specification has no working example to this process. If applicants wish to argue that the process in experiment 6 gave a product which had the 15.5 and 15.9 numbers but which is not form 1, they would need to show that they did in fact possess that form, since the specification does not seem to describe anything except forms I, II and II and the monohydrate. Accordingly, the statement in the specification is not credible, since it is contradicted by example 6.

The traverse is unpersuasive. The amendment, which sets a new range of 60°C to 70°C, does not solve the problem. The specification's statement, that heating the monohydrate at about 40°C to about 80°C gives form 1, is not credible for reasons set forth above. Therefore, the specification lacks a credible statement of how to make the Form 1. There is no backup statement that it can be made at range of 60 to 70 . The amendment appears to rely on the assumption that of 45 will give a different result than 60 . There

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is no basis for such an assertion, since the specification treats the entire 40 to about 80 as equivalent.

The remarks also state that "Experiment 6, however, only shows that Form I did not result according to the process described in Brand et al." This is correct, but the Brand process, which applicants themselves submitted, falls within the teaching of the specification.

Applicants further state, "there is no evidence that heating the monohydrate at about 60°C to about 70°C would not result in Form I." Agreed, but the examiner is not obliged to present evidence to rebut the assertion, because the specification lacks any credible assertion in the first place.

Claims 59-61, 66-69, 72-77 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The ethanol solvate cannot be deemed enabled. Therefore, all claims which involve this compound, its synthesis or its use, are not enabled.

Aside from the monohydrate, the specification describes three forms, I, II which are forms of Famciclovir, and Form III, which is called a methanol solvate. See page 3, lines 1-9. Form III is also called a methanol solvate three times in the description of figures on page 6, and three times on page 8.

Confusing matter is a statement on page 7, lines 19-21 which states that Form III refers to both the ethanol and methanol solvates. Specifically: "Both of these solvates have

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the same physiochemical properties and the same XRD pattern.” This statement cannot be taken correct on its face. Methanol is a toxin and ethanol is not; ethanol is a desiccant and methanol is not, and there are other differences, and therefore these do not have the same physiochemical properties. Hence, this sentence cannot be relied on. Further, having the same XRD pattern for two different compounds is very unlikely, although not theoretically impossible if the alcohol is at least partially disordered.

The traverse is unpersuasive. The remarks state, “Just because methanol and ethanol have differences in toxicity and desiccant properties does not necessarily prevent the methanol solvate and ethanol solvate of famciclovir to have the same physicochemical properties and XRD pattern.” This statement cannot be true for the “physicochemical properties” branch. Toxicity and desiccant properties are physicochemical properties, and therefore, differences in toxicity and desiccant properties means that physicochemical properties are different. Applicant’s position is like saying that A is yellow and B is red, but there is no difference in color. Applicants go on to state that one could have the same XRD pattern “As long as the methanol molecules or ethanol molecules are trapped in substantially the same crystal lattice of famciclovir”. If the molecules --- drug or solvent --- are ordered, these will show up in the XRD. As the examiner noted above, if both solvents are disordered, then yes, the same XRD pattern will result. This is quite uncommon, but as the examiner noted, it can occur. Applicants have presented no evidence that this is actually so.

There are additional problems. The specification does not teach how to make the ethanol solvate. Page 11 states, “Crystalline solid famciclovir form II was crystallized from ethanol. Crystalline solid famciclovir form II was also crystallized from n-butanol.” The

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second sentence makes it clear that Form II is not an ethanol solvate (Form II is never called in the specification a solvate). The first sentence then indicates that an ethanol solvate does not form from ethanol, and therefore, there is no teaching of how to form.

Page 12 states the following: “A mixture of crystalline solid famciclovir form III and form I was obtained by trituration of anhydrous famciclovir with ethanol.

A mixture of crystalline solid famciclovir form III and famciclovir monohydrate was obtained by trituration of anhydrous famciclovir in ethanol.”

These two sentences directly contradict each other. Hence, neither of them can be relied upon. In addition, these are both fairly inconsistent with the page 11 text. It seems very unlikely that trituration could produce the ethanol solvate when the more robust crystallization from ethanol failed to do so. See in this regard example 4 in which crystallization from ethanol produced form II. Note that the end provides, in effect, a trituration, as the crystals sit in the solvent. (The examiner notes that trituration with the similar solvent isopropanol produces Form 1, not a solvate). These are backed by examples 7, 8 and 9. These contain the remarkable results that a) the same product (Form III) is obtained regardless of whether methanol or ethanol is used and b) an experiment in which no water was employed, still produced the monohydrate. Therefore, these experiments cannot be relied upon. This point b) is an additional reason that claim 73 cannot be deemed enabled.

Applicants can overcome this by showing that they actually do have an ethanol solvate.

Applicants traverse by insisting that examples 8 and 9 on page 13 really did produce the ethanol solvate. But there is no direct evidence for such an assertion. The fact that no

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methanol was used does not mean that it was an ethanol solvate. There is no direct evidence as to what it is. With one exception, applicants have simply not dealt with the contradictions present --- for example, the fact that an experiment which used no water nonetheless produced a hydrate.

The one exception is the following: "The two sentences in page 12, lines 26-30, of the specification, as noted by the Office Action, are not contradictory because a person skilled in the art would interpret the two sentences in view of Examples 8 and 9." This is inadequate. First, each of these two sentences is clear and unambiguous, and hence requires no interpretation. Second, applicants have not proffered either what that "interpretation" is. Third, applicants have not set forth the reasoning as to how examples 8 and 9 would provide such an interpretation.

Claims 18, 53, 56-57, 60-63, 65-72, 78-85 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claims 18, 53, 56-57, 60-63, 65-72, 78-85 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The forms in these claims are defined in terms on only two peaks. Two peaks are not necessarily enough to define a particular crystalline form, since two forms could coincidentally have the same two peaks within the margin of error. For example, Form I and Form II both have 17.0 and 25.6. Thus applicants may be claiming:

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A. All forms with e.g. 6.6 and 13.0, regardless of whether these are I, II or III.

B. Only I, II and III.

Since it is unclear whether A or B is the case, the claims are indefinite.

If A is the case, then the claims are clearly not enabled, since applicants do not describe, nor do they teach, forms other than I, II or III.

If B is the case then the claims are indefinite under the second branch of paragraph 2 as well, since applicants intend B, but literally state A. The claims “must set forth the subject matter that Appellants regard as their Invention.” This is a separate requirement from definiteness.

The traverse is unpersuasive. Applicants have not responded to the thrust of the rejection, because they have not stated whether the claim is intended to be A or is intended to be B. Instead, applicants point to the 17.0 and 25.6. It is agreed that these numbers are not in the claims, but that is not the point. The point is that a pair of forms can happen to have two peaks in common. One of ordinary skill in the art knows this anyway, but as evidence of that fact, the examiner pointed out that even forms I and II have two peaks in common. Thus, it is entirely possible that there is another form which, like form III, also has 6.6 and 13.0. It is unclear whether applicants intend that form too, or just form III. Applicants can fix this matter by either a) choosing option A, and explaining how it is they enable all forms which happen to have 6.6 and 13.0 or b) choosing option B, and rewriting the claims to so require. At present, however, applicants have not done this.

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Information Disclosure Statement

Zhang was struck from the IDS because it is in Chinese and cannot be read. Wang was struck for the same reason; it does have an English abstract, but that is not sufficient to evaluate the reference's relevance to the claims.

Claim Objections

Claims 54-55 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, THIS ACTION IS MADE FINAL. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark L. Berch whose telephone number is 571-272-0663.

The examiner can normally be reached on M-F 7:15 - 3:45.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James O. Wilson can be reached on (571)272-0661. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Mark L. Berch/
Primary Examiner
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12/14/2009